Amendments to the Specification:

Please replace the paragraph beginning on page 2, line 28 with the following:

Emission efficiency is also enhanced by utilizing a resonant cavity structure in a resonant cavity LED (RCLED). RCLEDs are generally described in E. Fred Shubert, Light Emitting Diodes, Cambridge ~~Cambidge~~ University Press, Pages 198-211 (2003), ~~.~~ and typically comprise two oppositely doped epitaxial layers and mirrors on the oppositely doped layers such that the oppositely doped layers are sandwiched between the mirrors. One of the mirrors has reflectivity that is lower than the reflectivity of the other mirror so that light exits the RCLED through the lower reflectivity mirror. In other embodiments, an epitaxial active region can be included between the oppositely doped layers.

Please replace the paragraph beginning on page 3, line 26 with the following:

When fabricating RCLEDs of certain ~~certail~~ material systems there are challenges in depositing the two mirrors on opposite sides of epitaxial layers. The oppositely doped layers (and active region) are typically formed on a substrate using known fabrication methods and devices, such as epitaxial growth in a metalorganic chemical vapor deposition (MOCVD) reactor. Once these layers have been deposited on the substrate the first of the two mirrors may be deposited on the top, most recently grown epitaxial surface, which is usually the p-type doped layer. Placing a mirror surface on the surface of the other doped, first grown layer is not so easy, because the surface is in

contact with the growth surface of the substrate. The layers of RCLEDs are typically thin so it can be difficult to separate the substrate from the epitaxial layers so that the second mirror can be deposited. It may not be practical to deposit the mirror on the substrate and then grow the epitaxial layer because of the crystal lattice mismatch between the mirror material and epitaxial layers.

Please replace the paragraph beginning on page 6, line 13 with the following:

One embodiment of <u>a</u> ~~resonant cavity light emitting diode (RCLED)~~ according to the present invention comprises a thin film epitaxial semiconductor structure and a <u>first</u> ~~fist~~ mirror layer on one surface of the <u>epitaxial</u> ~~eptaxial~~ semiconductor structure. A second mirror layer is included on another surface of said epitaxial semiconductor structure such that said epitaxial semiconductor structure is sandwiched between the first and second mirrors, the second mirror layer being less reflective than the first mirror layer. A submount is also included, said epitaxial semiconductor structure with its first and second mirrors mounted on the submount, the first mirror layer being adjacent to the submount and the second mirror layer being the <u>primary</u> ~~primiary~~ emitting surface.

Please replace the paragraph beginning on page 11, line 1 with the following:

In step 18, the substrate, with its epitaxial layers and first mirror layer, is flip-chip mounted to a submount such that the top surface of the epitaxial layers, or the mirror, as the

case may be, is adjacent to the submount. The surface of the epitaxial ~~eptitaxial~~ layer or mirror layer can be bonded to the substrate using many known materials, one example being silver tin eutectic. The submount can be one of a single construction or can include a number of different structural members, and can be made of different materials such as silicon, silicon carbide, sapphire, glass or metals. The submount can also include electronic components to drive the device that comprises the Group-III epitaxial layers.

Please replace the paragraph beginning on page 11, line 14 with the following:

In step 20, the substrate is etched off of the epitaxial ~~eptixial~~ layers with the preferred etch being a composition that selectively removes the substrate at a high etch rate while etching the epitaxial ~~eptitaxial~~ layers at a very low etch rate. In one embodiment according to the present invention, the etch material can be nitrogen tri fluoride, which etches silicon carbide at a rate many times faster than it ~~in~~ etches Group-III nitride epitaxial layers. Ions of nitrogen tri fluoride readily remove silicon carbide down to its interface with the Group-III nitride materials. Once the silicon carbide is removed, etching essentially stops because the etch rate of the epitaxial layers is so slow.

Please replace the paragraph beginning on page 11, line 27 with the following:

Depending on the device being fabricated, alternate step 22 can be included wherein a mirror can be deposited on the surface

of the epitaxial layers that is revealed by the etching process. This step is usually included when fabricating a ~~resonant cavity LED (~~RCLED~~)~~, solid state laser, or vertical-cavity surface-emitting laser (VCSEL)."

Please replace the paragraph beginning on page 14, line 3 with the following:

FIG. 4 shows another embodiment of a RCLED 60 also having many of the same layers as RCLED 30, but wherein the first mirror 62 is a DBR as described above in method 10. DBR first mirror 62 can be made of many different layer pairs having different thicknesses and different indexes of refraction, with the DBR first mirror 62 <u>preferably</u> ~~preferrably~~ made of alternating dielectric layers of quarter wavelength thicknesses p-type silicon dioxide 64 and p-type titanium oxide 66. Another embodiment of the DBR first mirror 62 according to the present invention comprises alternating dielectric layers of silicon dioxide and tantalum pentoxide. The contrast in indexes of refraction between device structure 36 made of GaN and layers 64, 66 that form DBR first mirror 62 is sufficient that the DBR first mirror 42 effectively reflects light with two to four alternating layer pairs, with a suitable number of alternating layer pairs being three, although a DBR first mirror 62 with fewer or more pairs can also be used. The thickness of these layers corresponds to a quarter wavelength of light generated by the epitaxial device structure 36 when a bias is applied across the n-type and p-type layers 38, 40.

Please replace the paragraph beginning on page 20, line 22 with the following:

All of the devices described herein can also be fabricated with additional layers and features, one of them being a structure to protect the device from electrostatic ~~eletro static~~ discharge (ESD). FIG. 20 shows an LED 180 that is similar to the LED 170 of FIG. 19, but includes a zener diode 182 arranged between the submount 184 and the first mirror layer 186. The zener diode 182 is integrated into the submount 184 during submount fabrication and constrains the flow of current through the LED to one direction only. The LED shown also has angled side surfaces 186, 187 and a roughened emitting surface 188. When fabricating LED 180 using the method 10, the submount 184 is provided with the zener diode structure 182, such that when the device is flip-chip mounted on the submount 184 the zener diode structure 182 is integral with the device. The resulting structure provides high light extraction efficiency and high ESD rating. It is understood that the zener diode structure can be included in many different devices according to the present invention, including the different embodiments of the RCLEDs described above as well as vertical cavity surface emitting lasers and laser diodes.